

Qualities of Good Lessons

Quality	Description	Justification
<i>Agenda</i>	A list of key concepts should be prepared ahead of time and presented to the students at the beginning of the lesson. The agenda will include the learning goal and success criteria for the content being taught and can be presented to the students either verbally or by writing it on the board. An effective agenda would also have an approximate time frame for each concept/activity so that students would have a rough idea of how long each activity was going to last.	Listed at number 27 on Hattie's List, advance organizers have a 0.46 mean effect size proving that they are a very useful and essential tool to an effective lesson. Also on Hattie's list at number 37, Time on Task has a mean effect size of 0.37. This means that telling students the amount of time they will be spending on one activity or concept is very useful. Using an agenda with approximate times outlined at the start of class will help to reduce any anxiety that students may have regarding the structure of the lesson. Giving the learning goals and success criteria at the beginning of the class will improve student success as they know what is expected of them.
<i>Assessment</i>	An in class method of documenting the students work to notify the teacher of what the students have retained from the lesson. This method of assessment could be demonstrated by a class discussion, a question and answer period, think-pair-share activities as well as peer and self-assessments. Three different types of assessment are diagnostic, formative and summative which are assessed at the	According to the Ministry of Education Growing Success document, assessment is the process of gathering information from a student to determine how well or how poorly they are doing in a course. The assessment can also be used by students to provide feedback to other students, to monitor their own progress as well as to make adjustments to their own work which allows them to set higher goals for themselves.

	beginning of the course, throughout the entire course (tests, assignments, quizzes, etc.) and at the end of the course (ISU's and exams), respectively.	
Challenging Problems	Challenging questions are given to students to work on during class time that requires further thinking and problem solving skills. These questions require the students to use their knowledge about the concepts that they've recently obtained and to try some more difficult examples while the clarification of the teacher is available.	One of Hattie's three principles is for students and teachers to set appropriate, specific and challenging goals. Ranked 12 th on Hattie's list with a mean effect size of 0.59, giving challenging goals and problems for students to complete has a positive effect on student learning.
Consolidation (ticket out the door)	Some form of wrap-up activity at the end of the lesson will help to determine what the students have learned from the lesson and the concepts that they took from the lesson. Consolidation works both as a reflection of learning for the students about what they should have learned as well as an assessment for the teacher to assist in planning the next lesson. The closure is a great opportunity for formative assessment to be done which will provide both the student and the teacher where they are at.	According to the Ministry of Education as outlined in the Growing Success document, Assessment for Learning and Assessment as learning are areas that provide critical feedback to students. The information that is gathered through consolidation is used by teachers to monitor students' progress towards achieving the overall and specific expectations. The information is also used by students to monitor their own progress towards achieving their learning goals and allows them to make adjustments in their learning approaches as needed.

		<p>According to Hattie, achievement is enhanced as a function of feedback on their work from the teacher, from themselves (through self-assessment) or from other peers. The influence of feedback has a major effect on student learning with an effect size of 0.81.</p>
<i>Differentiated Instruction</i>	<p>Differentiated instruction can be carried out in a number of different ways throughout a lesson. A lesson can have differentiation through the products students create (assignments, groups vs. individual work, presentations, etc.) as well as the environment students are working in (quiet work space, group works space, etc.). Teaching a lesson with a variety of learning styles in the class requires the teacher to adjust their lessons on a regular basis. Differentiated instruction allows the teacher to reach students with different learning styles to and incorporate many of the different learning styles into one lesson.</p>	<p>Differentiated instruction incorporates many of the influences listed on Hattie's list as being effective. Some of the very influential methods that Hattie listed were reciprocal teaching (mean effect size = 0.86), whole-class interactive teaching (mean effect size = 0.81), cooperative learning ((mean effect size = 0.59) as well as creativity programs (mean effect size = 0.52). These methods all incorporate differentiated instruction and allow the students to work together or alone in many different ways which provides a change from the regular lecture style lessons. When incorporated properly with the required amount of preparation, differentiated instruction can provide the students with a sense of motivation and cause them to have sense of interest in the content.</p>
<i>Engagement factor</i>	<p>Keeping students interested and involved in the lesson to allow them to focus on the material being covered and retain the concepts that were taught. When the</p>	<p>Creativity within a lesson will help the engagement factor and learning success. Creativity programs scored 0.52 on Hattie's list, hence above the average effect of an innovation.</p>

	<p>students are more engaged in the lesson, they are more likely to participate in the lesson and find the lesson interesting.</p>	<p>In addition motivation scored a 0.47 on Hattie's list which means that the more motivation there is in a lesson, the larger the influence on student learning. Based on Hattie's research its worth having an engagement factor within your lessons so that the students stay engaged and on topic. If the students become disengaged and bored, they will generally start getting off topic and potentially begin disrupting the lesson.</p>
<i>Inclusion/ mutual respect</i>	<p>A positive learning environment is crucial for learning. If students demonstrate mutual respect for one another they will feel more comfortable to participate in the lesson, enhancing ones learning. This means that the student-student interactions need to be positive as well as the student-teacher interactions.</p>	<p>As a teacher, establishing a positive learning environment at the beginning of the year is always important. This allows the students to feel more comfortable and in turn will allow the students to benefit more from the course. On Hattie's list, appropriate classroom behaviour had an effect size of 0.71 which means that student learning is greatly benefitted when this influence is in place. Classroom climate scored a 0.35 mean effect size on Hattie's list which means that it is still above average and will benefit the students but does not have as large as an effect as appropriate classroom behaviour. However, when put together, these two influences will help to create a very positive learning environment and ultimately enhance students' learning.</p>
<i>Lesson builds on Prior Knowledge</i>	<p>The lesson progresses from previously covered material to areas that are newly introduced, allowing students to recall and</p>	<p>According to Reigeluth's <u>Elaboration Theory</u> , content should be organized and taught from simple to complex order. This method was</p>

	build from their prior knowledge. In this section, it would be important that the teacher had conducted some form of assessment after teaching the previous lesson so that he/she did not move on before the class was not ready.	designed to help select and sequence content in a way that will optimize fulfillment of learning goals.
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Qualities of Excellent Lessons

Quality	Description	Justification
<i>Agenda</i>	A list of key concepts should be prepared ahead of time and presented to the students at the beginning of the lesson. The agenda will include the learning goal and success criteria for the content being taught and can be presented to the students either verbally or by writing it on the board. An effective agenda would also have an approximate time frame for each concept/activity so that students would have a rough idea of how long each activity was going to last.	Listed at number 27 on Hattie's List, advance organizers have a 0.46 mean effect size proving that they are a very useful and essential tool to an effective lesson. Also on Hattie's list at number 37, Time on Task has a mean effect size of 0.37. This means that telling students the amount of time they will be spending on one activity or concept is very useful. Using an agenda with approximate times outlined at the start of class will help to reduce any anxiety that students may have regarding the structure of the lesson. Giving the learning goals and success criteria at the beginning of the class will improve student success as they know what is expected of them.
<i>Assessment</i>		

	<p>An in class method of documenting the students work to notify the teacher of what the students have retained from the lesson. This method of assessment could be demonstrated by a class discussion, a question and answer period, think-pair-share activities as well as peer and self-assessments. Three different types of assessment are diagnostic, formative and summative which are assessed at the beginning of the course, throughout the entire course (tests, assignments, quizzes, etc.) and at the end of the course (ISU's and exams), respectively.</p>	<p>According to the Ministry of Education Growing Success document, assessment is the process of gathering information from a student to determine how well or how poorly they are doing in a course. The assessment can also be used by students to provide feedback to other students, to monitor their own progress as well as to make adjustments to their own work which allows them to set higher goals for themselves.</p>
Challenging Problems	<p>Challenging questions are given to students to work on during class time that requires further thinking and problem solving skills. These questions require the students to use their knowledge about the concepts that they've recently obtained and to try some more difficult examples while the clarification of the teacher is available.</p>	<p>One of Hattie's three principles is for students and teachers to set appropriate, specific and challenging goals. Ranked 12th on Hattie's list with a mean effect size of 0.59, giving challenging goals and problems for students to complete has a positive effect on student learning.</p>
Consolidation (ticket out the door)	<p>Some form of wrap-up activity at the end of the lesson will help to determine what the students have learned from the lesson and</p>	<p>According to the Ministry of Education as outlined in the Growing Success document, Assessment for Learning and Assessment as learning are</p>

	<p>the concepts that they took from the lesson. Consolidation works both as a reflection of learning for the students about what they should have learning as well as an assessment for the teacher to assist in planning the next lesson. The closure is a great opportunity for formative assessment to be done which will provide both the student and the teacher where they are at.</p>	<p>areas that provide critical feedback to students. The information that is gathered through consolidation is used by teachers to monitor students' progress towards achieving the overall and specific expectations. The information is also used by students to monitor their own progress towards achieving their learning goals and allows them to make adjustments in their learning approaches as needed.</p> <p>According to Hattie, achievement is enhanced as a function of feedback on their work from the teacher, from themselves (through self-assessment) or from other peers. The influence of feedback has a major effect on student learning with an effect size of 0.81.</p>
<i>Differentiated Instruction</i>	<p>Differentiated instruction can be carried out in a number of different ways throughout a lesson. A lesson can have differentiation through the products students create (assignments, groups vs. individual work, presentations, etc.) as well as the environment students are working in (quiet work space, group works space, etc.). Teaching a lesson with a variety of learning styles in the class requires the teacher to adjust their lessons on a regular basis. Differentiated instruction allows the teacher</p>	<p>Differentiated instruction incorporates many of the influences listed on Hattie's list as being effective. Some of the very influential methods that Hattie listed were reciprocal teaching (mean effect size = 0.86), whole-class interactive teaching (mean effect size = 0.81), cooperative learning ((mean effect size = 0.59) as well as creativity programs (mean effect size = 0.52). These methods all incorporate differentiated instruction and allow the students to work together or alone in many different ways which provides a change from the regular lecture style lessons. When incorporated</p>

	to reach students with different learning styles to and incorporate many of the different learning styles into one lesson.	properly with the required amount of preparation, differentiated instruction can provide the students with a sense of motivation and cause them to have sense of interest in the content.
Discussion	A section of the class where the students are able to talk to their peers as well as the teacher and review the concepts that were just taught. When the students are able to discuss the concepts with their peers, it gives time for the new material to sink in and it also allows the studnets to validate any questions they may have.	According to Hattie's list , classroom discussion is one of the components of a lesson that has a positive influence on student achievement. Classroom behaviour has a mean effect size of 0.82 which means that it is extremely influential. This discussion period allows the students to interact with one another and to bounce their thoughts off of one another.
Effective Questioning	Involve the use of asking questions that are based on the content just taught but require higher order thinking skills. These questions would incorporate open ended questions that would provoke an interesting discussion amongst the class and would also build on the students problem solving skills. In order for the questions to be truly effective though, appropriate wait time is needed in between questions (ex. if no one is answering, do not give the answer away but instead after a short pause rephrase the question).	Hattie's principle for appropriate , specific and challenging problems demonstrates the need for effective questions based on the students performance. According to the Center for Teaching and Learning at the University of North Carolina, Bloom's Taxonomy uses a multi-tiered scale to express the level of expertise required to achieve each outcome.
Engagement factor		

(Humour)	<p>Keeping students interested and involved in the lesson to allow them to focus on the material being covered and retain the concepts that were taught. During a lesson, humour can be inserted anywhere throughout the lesson and can be used as an engagement factor. Using humour with a class can help a teacher build rapport with their students which is helpful. When the students are more engaged in the lesson, they are more likely to participate in the lesson and find the lesson interesting.</p>	<p>Creativity within a lesson will help the engagement factor and learning success. Creativity programs scored 0.52 on Hattie's list, hence above the average effect of an innovation. In addition motivation scored a 0.47 on Hattie's list which means that the more motivation there is in a lesson, the larger the influence on student learning. Based on Hattie's research its worth having an engagement factor within your lessons so that the students stay engaged and on topic. If the students become disengaged and bored, they will generally start getting off topic and potentially begin disrupting the lesson.</p>
Feedback	<p>Feedback is any form of constructive criticism that is given to a student by a teacher or another peer. This will give the students a better understanding of where they stand with the content and will allow them to determine if they are ready to move on to the next topic. Feedback from a teacher can be given at the bottom of the document after marking a copy of an assignment or a paper. Student`s can also receive feedback from their peers in the class when they are asked to switch assignments and proof read each other`s.</p>	<p>According to Hattie, achievement is enhanced as a function of feedback on their work from the teacher, from themselves (through self-assessment) or from other peers. The influence of feedback has a major effect on student learning with a mean effect size of 0.81.</p>
Hook (minds on activity)		

	<p>A quick introductory activity to engage the students on the topic that's about to be introduced, allowing them to start thinking about it before the lesson starts. A hook is also designed to stimulate the students minds at the beginning of the lesson so they will be motivated and engaged throughout the entire lesson.</p>	<p>Keller's ARCS Model of Motivational Design discusses how attention, relevance, confidence and satisfaction are all needed to promote motivation in the learning process. Having a hook at the beginning of the lesson is surely to grab the students attention and will have relevance to the lesson being taught that day. If these first steps can be done through a hook, then there is a better chance that the students will be motivated and engaged throughout the lesson. If the students are motivated and engaged throughout the lesson, there is a better chance that they will retain more of the content being taught.</p>
<i>Inclusion/ mutual respect</i>	<p>A positive learning environment is crucial for learning. If students demonstrate mutual respect for one another they will feel more comfortable to participate in the lesson, enhancing ones learning. This means that the student-student interactions need to be positive as well as the student-teacher interactions.</p>	<p>As a teacher, establishing a positive learning environment at the beginning of the year is always important. This allows the students to feel more comfortable and in turn will allow the students to benefit more from the course. On Hattie's list, appropriate classroom behaviour had an effect size of 0.71 which means that student learning is greatly benefitted when this influence is in place. Classroom climate scored a 0.35 mean effect size on Hattie's list which means that it is still above average and will benefit the students but does not have as large an effect as appropriate classroom behaviour. However, when put together, these two influences will help to create a very positive learning environment and ultimately enhance students' learning.</p>

<i>Lesson builds on Prior Knowledge</i>	<p>The lesson progresses from previously covered material to areas that are newly introduced, allowing students to recall and build from their prior knowledge. In this section, it would be important that the teacher had conducted some form of assessment after teaching the previous lesson so that he/she did not move on before the class was not ready.</p>	<p>According to Reigeluth's Elaboration Theory, content should be organized and taught from simple to complex order. This method was designed to help select and sequence content in a way that will optimize fulfillment of learning goals.</p>
<i>Use of Technology</i>	<p>When at all possible, some form of technology should be incorporated to gain the students attention and to enhance their learning. Technology can be used in the classroom in the form of SmartBoards, computers, projectors, showing videos, using video cameras, etc. Students will be much more engaged when they are able to use technology in the classroom as this is what they are use to doing at home. Also, there is a better chance that the students will pay attention when the technology is being used in the classroom which could potentially increase their understanding of the content being delivered.</p>	<p>According to the UK Department for Education, technology has a transformative power and has many positive effects when used in the classroom. Using technology allows teachers to use video clips and online modules, provides the students and teacher with many different resources and also allows the teacher to incorporate computer games and interactive software into their lessons.</p> <p>Also, according to Hattie, using an interactive video in the class as well as using creativity programs have a mean effect size of 0.52.</p>